

Analysis of the Implementation of Sign Language Education and Training for Frontliner Officers of PT Angkasa Pura Indonesia

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Abstract

This study aims to analyze the implementation of sign language education and training for PT Angkasa Pura Indonesia frontline officers at I Gusti Ngurah Rai International Airport, Bali, and its contribution to improving officer performance in providing inclusive services. This study uses a qualitative approach with descriptive methods. The research informants were six people consisting of one Human Capital Development unit, one Customer Service Officer Leader, two Customer Service officers, and two Aviation Security (AVSEC) officers, selected using a purposive sampling technique. Data were obtained through observation, in-depth interviews, and documentation, then analyzed using data reduction, data presentation, and conclusion drawing techniques. The results of the study indicate that the implementation of sign language education and training has been carried out systematically through training needs analysis, participant selection, material preparation, training implementation, and evaluation of training results. The discussion shows that the training contributed to improving the competence of frontline officers, as demonstrated by increased understanding of sign language, the ability to communicate with passengers with hearing impairments, confidence in providing services, and the creation of more responsive and inclusive services. In conclusion, sign language education and training contribute to improving the competence and performance of frontline officers and support the realization of more inclusive airport services for all service users.

Keywords

sign language training; frontline performance; human resource development; inclusive services; airports.



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INTRODUCTION

Airports are a public service sector that plays a strategic role in supporting public mobility and the development of national and international tourism. As one of the busiest airports in Indonesia, I Gusti Ngurah Rai International Airport in Bali is required not only to provide adequate physical facilities and airport technology but also to ensure high-quality service to all users. Service quality is a factor that influences the passenger experience and the image of a

tourist destination. Therefore, service providers need to ensure safe, comfortable, responsive, and inclusive services for all, including people with disabilities (Shahparan et al., 2024). The quality of service provided by airport staff also influences passenger satisfaction levels during air transportation (Faoziah N, 2022). Therefore, service providers need to ensure safe, comfortable, responsive, and inclusive services for all, including people with disabilities (Usman et al., 2023).

From a human resource management perspective, employees are a strategic asset that determines the success of an organization in achieving its goals. Effective human resource management requires continuous competency development so that employees can adapt to evolving organizational demands (Nainggolan et al., 2022). Optimal employee performance is a crucial factor in increasing organizational effectiveness and supporting competitive advantage (Purwatiningsih et al., 2022). One effort organizations can make to improve employee competency and performance is through education and training. (Wakhindah Chindy & Aminnudin Moch, 2026) shows that training has a positive impact on employee performance and is the most dominant factor in improving performance. In the airport sector, service quality is measured not only by technical operational aspects but also by the quality of interactions between staff and passengers. Therefore, communication skills are a key competency that frontline staff must possess in providing service to all service users (Usman et al., 2023).

One group of passengers requiring special attention are deaf passengers who rely on visual communication through sign language. Research on public services in Indonesia shows that people with disabilities still face various barriers in obtaining equal access to services, particularly in the communication and information aspects (Chairunnisa & Sulistio, 2025). Inclusive public services require the provision of equal access and tailoring services to the needs of vulnerable groups so that all members of society can receive services without discrimination (Tue et al., 2026). Public service standards also serve as benchmarks in the provision of quality services, so each agency needs to ensure that the services provided are able to meet the needs of all community groups effectively and inclusively (Anzani Elvira et al., 2026). In line with this, the International Civil Aviation Organization (ICAO) emphasizes the importance of implementing an inclusive and accessible air transportation system for people with disabilities (ICAO, 2024). At the national level, Law Number 8 of 2016 concerning Persons with Disabilities also guarantees the rights of people with disabilities to receive public services that are equal, dignified, and free from discrimination. Efforts to achieve inclusive public services require adequate communication access so that people with disabilities can receive services on an equal basis with other service users (Pramashela & Rachim, 2021). Therefore, the ability of airport staff to communicate using sign language not only reflects individual professionalism but also demonstrates the organization's commitment to achieving inclusive public services.

As a manifestation of this commitment, PT Angkasa Pura Indonesia held sign language training for frontline staff at I Gusti Ngurah Rai International Airport in Bali as part of its efforts to improve human resource competency. Education and training are human resource development strategies that play a role in continuously improving employee competency,

thereby supporting the achievement of organizational goals (Yusuf & Hendra, 2023). Based on initial observations, approximately 4–7 deaf passengers use airport services daily. In service practice, staff still face various challenges, such as limited proficiency in sign language, hesitation in conveying information accurately, and difficulty establishing effective communication. Effective communication is a critical factor influencing service quality and staff performance in providing information to service users (Daviki & Surya Wijaya, 2024). This situation suggests that improving communication competency through training is a crucial need to support more inclusive services.

Various previous studies have shown that training is an effective strategy for improving human resource competency and performance. Anggraeni & Candrasasi. (2025) found that sign language training was effective in improving participants' communication skills with deaf people. However, this study focused on improving communication skills and did not examine the implementation of the training in the context of public services in the airport sector. Furthermore, Putri & Astuti (2022) found that training success was influenced by participants' ability to implement the acquired knowledge and skills into their work. However, this study did not address sign language training or its application in the airport sector. Elshifa A et al. (2024) suggested that sign language training could improve participants' communication skills with deaf people, but this study did not examine the implementation of the training outcomes in airport services. Meanwhile, Usman et al. (2023) emphasized that the communication competence of service personnel influences the quality of service to service users, but did not specifically link this to the implementation of sign language training. Based on these research results, it can be concluded that studies on the implementation of sign language training in the airport sector are still relatively limited, especially those analyzing the implementation of training outcomes in service practices for passengers with hearing impairments. Based on the study, there is still a research gap, namely that there are not many studies that comprehensively examine the implementation of sign language training starting from the planning stage, implementation, to the implementation of training results by frontliners in providing services to passengers with hearing impairments in the airport environment. The novelty of this study lies in the analysis of the implementation of sign language training in the airport sector using a qualitative approach by exploring the training implementation process, the experience of frontliners in implementing training results in real service situations, and their contribution to improving inclusive service performance at PT Angkasa Pura Indonesia, I Gusti Ngurah Rai International Airport–Bali

Based on the description, the problem of this research is how the implementation of sign language training for PT Angkasa Pura Indonesia frontliner officers at I Gusti Ngurah Rai International Airport–Bali and how the training supports the improvement of officer performance in providing services to passengers with hearing impairments. Therefore, this study aims to analyze the implementation of sign language training for PT Angkasa Pura Indonesia frontliner officers at I Gusti Ngurah Rai International Airport–Bali and analyze its

contribution to improving professional, responsive, and inclusive service-oriented service performance.

METHODS

This research uses a qualitative approach with descriptive methods and a case study strategy to analyze the implementation of sign language training to support the performance improvement of PT Angkasa Pura Indonesia's frontline officers at I Gusti Ngurah Rai International Airport, Bali. This approach was chosen because it allowed researchers to gain an in-depth understanding of the training process and the implementation of training outcomes in service practices for passengers with hearing impairments. The research was conducted at I Gusti Ngurah Rai International Airport, Bali, because this airport has implemented sign language training as an effort to improve the quality of inclusive service.

The research informants were selected using a purposive sampling technique, which involves selecting informants based on specific considerations consistent with the research objectives. Six informants were selected: one Human Capital Development officer, one Customer Service Officer (CSO) Leader, two Customer Service (CS) officers, and two Aviation Security (AVSEC) officers who had received sign language training. The informants were selected because of their direct involvement in the planning, implementation, and implementation of the sign language training.

The research data consisted of primary and secondary data. Primary data were obtained through non-participatory observation, semi-structured interviews, and documentation, while secondary data were obtained from books, scientific journals, company documents, laws and regulations, and International Civil Aviation Organization (ICAO) guidelines relevant to the research. Data analysis was conducted using a qualitative data analysis model according to (Sugiyono, 2023), which includes data reduction, data presentation, and drawing and verifying conclusions. Data validity was tested through source and method triangulation by comparing the results of observations, interviews, and documentation to increase the credibility of the research findings.

RESULTS AND DISCUSSION

Based on the results of observations, interviews, and documentation, several key findings were obtained regarding the implementation of sign language training for frontliner staff of PT Angkasa Pura Indonesia at I Gusti Ngurah Rai International Airport, Bali. The findings encompass the training needs analysis, participant selection, training implementation, the impact of the training on staff competencies, and its contribution to inclusive airport services. A summary of the research findings is presented in **Table 1**.

Table 1. Summary of Research Findings

Aspect	Research Findings
Training needs analysis	The training began with a learning analysis to identify the competency needs of frontliner staff.
Training participants	Customer Service (CS) and Aviation Security (AVSEC) personnel.
Training materials	Basic sign language, communication practice, service simulations, and evaluation.
Training impact	Improved staff knowledge, communication skills, and self-confidence in serving passengers with hearing impairments.
Challenges	The frequency of interaction with passengers with hearing impairments was relatively low, indicating the need for refreshment training.

Source: Processed primary data (2026).
 Note: CS = Customer Service; AVSEC = Aviation Security.

As shown in **Table 1**, this study produced five major findings regarding the implementation of sign language training, namely the training needs analysis, participant selection and training implementation, the impact of the training on frontliner staff competencies, challenges in implementing the training outcomes, and the contribution of the training to inclusive airport services. Each of these findings is discussed in greater detail below.

1. Training Needs Analysis

The implementation of sign language training at PT Angkasa Pura Indonesia began with a training needs analysis (learning analysis) conducted by the Human Capital Development division. Based on the interview findings, the needs analysis was carried out to identify the competencies required by frontliner staff in providing services to passengers with hearing impairments. The results of this analysis served as the basis for determining the training objectives, training materials, selection of the training provider (vendor), and participants who would attend the training.

The implementation of the needs analysis demonstrates that the company has systematically applied the training planning process, ensuring that the training program aligns with both organizational needs and service demands. According to Dessler (2020), needs identification is the initial stage that determines training effectiveness because the training materials provided must correspond to the competencies required for the job. Therefore, the sign language training was not only intended to enhance individual competencies but also to support the organization's human resource development strategy in improving the quality of public services.

2. Participant Selection and Training Implementation

Based on the research findings, the training participants were selected from the Customer Service (CS) and Aviation Security (AVSEC) units because these

departments have the highest frequency of interaction with passengers. The training was conducted through the delivery of basic sign language instruction, communication practice, service simulations, and evaluations to assess participants' understanding of the training materials.

The selection of participants based on job characteristics indicates that the company carefully considered the relevance of the training to operational requirements. The implementation of training that combined theoretical instruction with practical exercises provided participants with opportunities to both understand and apply sign language in actual service situations. This finding is consistent with Putri and Astuti (2022), who stated that training effectiveness is influenced by the alignment of training materials with job requirements as well as participants' ability to apply the competencies acquired during training.

3. The Impact of Training on Frontliner Staff Competencies

The interview results revealed that the sign language training had a positive impact on improving the competencies of frontliner staff. Before participating in the training, most staff members acknowledged experiencing difficulties communicating with passengers with hearing impairments and primarily relied on written communication or simple gestures. After completing the training, staff were able to use basic sign language vocabulary to provide information regarding departure procedures, security screening, airport facility locations, and other passenger services.

In addition to improving communication skills, the training also enhanced staff members' self-confidence when providing services. Staff reported feeling more prepared to handle service situations involving passengers with hearing impairments because they had acquired fundamental knowledge of sign language.

These findings indicate that the training contributed to improving job competencies that directly supported service quality. The results are consistent with the study by Purwatiningsih et al. (2022), which concluded that human resource development through training enhances employee competencies and subsequently improves organizational performance. Furthermore, these findings support the study by Elshifa A et al. (2024), which demonstrated that sign language training can improve participants' communication skills in providing services to individuals with hearing impairments.

4. Challenges in Implementing the Training Outcomes

Although the training produced positive outcomes, the findings indicate that several challenges remain in implementing the acquired competencies. Based on the interview results, the frequency of interactions between staff and passengers with

hearing impairments was relatively low, creating the possibility that sign language skills would gradually decline if they were not practiced regularly. Consequently, most informants recommended the implementation of periodic refreshment training to maintain their communication skills.

These findings suggest that training effectiveness depends not only on the quality of the training process itself but also on the continuity of learning after the training has been completed. Follow-up training represents one strategy that the company can implement to maintain staff competencies, thereby ensuring that services provided to passengers with hearing impairments remain effective and inclusive.

Discussion is the most important part of writing a journal article. At this stage, the author must present the thesis and research findings systematically, scientifically, and factually. Explain the impact of research findings and their impact. Then the writer must compare the results with previous studies relevant to the topic of discussion.

5. Contribution of Training to Inclusive Airport Services

Overall, the research results indicate that implementing sign language training contributes to improving the communication competency, self-confidence, and service quality of frontline staff. This improved competency supports the realization of more professional, responsive, and inclusive airport services for all service users, including passengers with hearing impairments.

These findings reinforce the opinion of Usman et al. (2023) that service quality is influenced by the ability of staff to interact with service users. Furthermore, implementing sign language training also reflects the implementation of inclusive public services as mandated by Law Number 8 of 2016 concerning Persons with Disabilities and the guidelines (ICAO, 2024) regarding the provision of accessible air transportation services for all passengers.

CONCLUSION

This study shows that sign language training at PT Angkasa Pura Indonesia, I Gusti Ngurah Rai International Airport, Bali, was systematically implemented through needs analysis, participant selection, material development, implementation, and evaluation. The training successfully improved the competency of frontline staff, particularly in basic sign language communication skills, understanding of deaf culture, and confidence in providing services to passengers with hearing impairments. This improved competency contributes to the realization of more professional, responsive, and inclusive airport services. Therefore, sign language training can be a human resource development strategy to improve the quality of public services within the airport environment.

PT Angkasa Pura Indonesia is recommended to hold regular refresher training to maintain and improve the sign language competency of frontline staff, ensuring optimal application of the skills acquired through training in service. Furthermore, the company can expand the training program to work units that interact directly with passengers to further optimize the implementation of inclusive services..

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